

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>03021 Se</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/EP2004/003093</b>	International filing date (day/month/year) <b>24.03.2004</b>	Priority date (day/month/year) <b>25.03.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>CERAMTEC AG</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/>	Box No. I	Basis of the report																							
<input type="checkbox"/>	Box No. II	Priority																							
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																							
<input type="checkbox"/>	Box No. IV	Lack of unity of invention																							
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																							
<input type="checkbox"/>	Box No. VI	Certain documents cited																							
<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application																							
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																							

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

Rest Available Copy

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003093

Box No. I

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-5 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-12 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/2, 2/2 \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003093

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims		YES
	Claims	1, 2, 3, 7, 8, 9, 10	NO
Inventive step (IS)	Claims		YES
	Claims	4, 5, 6, 11, 12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

1. The following documents were cited in the search report:

D1: GB-A-2 365 343 (BRADLEY JOHN STEPHEN)  
20 February 2002 (2002-02-20)

D2: WO 01/05338 A (CERAMTEC AG; RACK ROBERT (DE);  
BUNZ UWE (DE); HOCH ERNST (DE); PFA)  
25 January 2001 (2001-01-25)

D3: US-B1-6 379 389 (KOCH RUDOLF) 30 April 2002  
(2002-04-30)

D4: US-A-6 162 257 (HAMMETT RICHARD S ET AL)  
19 December 2000 (2000-12-19)

D5: US-A-5 916 269 (SERBOUSEK JON ET AL) 29 June  
1999 (1999-06-29)

D6: US-A-4 068 324 (TOWNLEY CHARLES O ET AL)  
17 January 1978 (1978-01-17)

2. Document D1 is considered the closest prior art and discloses (see figure 1; see page 2, line 15 to page 3, line 4) a hip joint prosthesis 1 with a ceramic inner sliding cup 4, the outer side of which is surrounded by a plastic covering 3, for direct implantation using bone cement (see page 5,

Best Available Copy

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>line 5), a ball head articulating in the inner sliding cup 4, said ball head being mounted on a shaft which can be anchored in the femur, the outer side of the sliding cup 4 being provided with structuring 20, 21.</p> <p>All the features of claim 1 are thus known from <b>D1</b>. Claim 1 therefore fails to meet the requirements of PCT Article 33(2).</p> <p>The features of claim 1 are also known from <b>D2</b> (see the structuring on pin 3) and <b>D3</b> (see the structuring on pin 5).</p> <p>3. The features of claims 2, 3, 7, 8, 9 and 10 also lack novelty and do not meet the requirements of PCT Article 33(2).</p> <p>Regarding claim 2, see <b>D1</b> and the large circulating radius in the groove root of annular grooves 20, 21.</p> <p>Regarding claim 3, see the observations relating to claim 2, it being clear that the radius is greater than 0.5 mm.</p> <p>Regarding claim 7, see, for example, the spherical structure in figure 1 of <b>D1</b> or the stepped structure in figure 2 of <b>D2</b>.</p> <p>Regarding claim 8, see figure 1 of <b>D1</b> or figure 2 of <b>D2</b>.</p>

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

Regarding claim 9, see figure 1 of D1.

Regarding claim 10, see D2, page 2, line 4.

4. The features of claims 4, 5, 6, 11 and 12 are considered, in view of documents D4, D5 or D6, to be common measures in the art which do not involve an inventive step.

Thus D4, figure 2, for example, shows undulating depressions which circulate the upper outer edge of the inner sliding cup 60 (claims 4 and 5).

Semicircular depressions on the sliding surfaces are known from figures 6 and 10 of D5 (claim 6).

An inner shape which is eccentric to the outer shape of the sliding cup with an eccentricity of more than 0.001 mm is shown in figures 10 and 11 of D6.

Rest Available Copy

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003093

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

5. D1 should be acknowledged in the description (PCT Rule 5.1(a)(ii)). Claim 1 should be delimited over D1 (PCT Rule 6.3(b)).

Best Available Copy

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003093

## Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

6. In claim 1 it is not clear (PCT Article 6) whether the wording that a ball head **articulates** in the inner sliding cup means that the ball head is part of the hip joint prosthesis. Claim 1 was thus interpreted as if this is not intended to be the case ("can be articulated").

Best Available Copy